

CLAIM AMENDMENTS

The listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A data processing device, comprising an electronic memory component, the data processing device comprising:

~~at least two access-secured sub-areas, each having at least one assigned part of a parameter comprising at least one bit, the device configured such that an encryption method is applied to fewer than all of said sub-areas; and~~

~~an encryption block, wherein said encryption block receives an address comprised of a series of parameters a_0, \dots, a_n and applying an encryption method on at least one assigned part of said parameter from at least one of said sub-areas and encrypts said part of said parameter to produce an encrypted series of parameters a'_0, \dots, a'_n according to the series:~~

$$a'_j = \begin{cases} f_{n-j+1}(a_j) & j = n \\ f_{n-j+1}(a_j + f_{n-j}(a_{j+1})) & j = 0, \dots, n-1 \end{cases}$$

wherein encryption function f_{j+1} and encryption function f_j are distinct for all values of j , and

for at least a first parameter in said series of parameters, $a'_x \neq a_x$ and for at least a second parameter in said series of parameters, $a'_y = a_y$.

2-3. (Canceled)

4. (Previously Presented) The data processing device as claimed in claim 1, wherein the memory component comprises:

an erasable programmable read only memory,
an electrically erasable programmable read only memory or
a flash memory.

5. (Canceled)

6. (Currently Amended) A method of securing access to an electronic memory, comprising:

receiving, by a data processing device, an address comprised of a series of parameters a_0, \dots, a_n , wherein the parameter is comprised of at least two parts, each part comprising at least one bit;

~~assigning, by said data processing device, said parts of the parameter into at least two access secured sub areas located in said data processing device; and~~

~~encrypting, by said data processing device, at least one of said parts of the parameters in said access-secured sub-areas with an encryption method, wherein said encryption method is applied to fewer than all of said sub-areas to produce an encrypted series of parameters a'_0, \dots, a'_n according to the series:~~

$$a'_j = \begin{cases} f_{n-j+1}(a_j) & j = n \\ f_{n-j+1}(a_j + f_{n-j}(a_{j+1})) & j = 0, \dots, n-1 \end{cases}$$

wherein encryption function f_{j+1} and encryption function f_j are distinct for all values of j , and

for at least a first parameter in said series of parameters, $a'_x \neq a_x$ and for at least a second parameter in said series of parameters, $a'_y = a_y$.

7. (Canceled)

8. (Currently Amended) The method as claimed in ~~claim 7~~ claim 6, characterized in that the function is one-to-one, according to the equation
$$a'_0 = f_{n+1}(a_0 + f_n(a_1 + f_{n-1}(a_2 + \dots + f_1(a_n))))$$

9. (Canceled)

10. (Currently Amended) TheA data processing device of claim 1, comprising an electronic memory component, comprising:

~~at least two access secured sub areas, each having at least one assigned part of a parameter comprising at least one bit, the device configured such that an encryption method is applied to fewer than all of said sub areas, wherein the data processing device is utilized in at least one of:~~

a one smart card controller,

a reader integrated circuit,

a cryptography chipset, or

for application in at least one of audio or video encryption.

11-16. (Canceled)